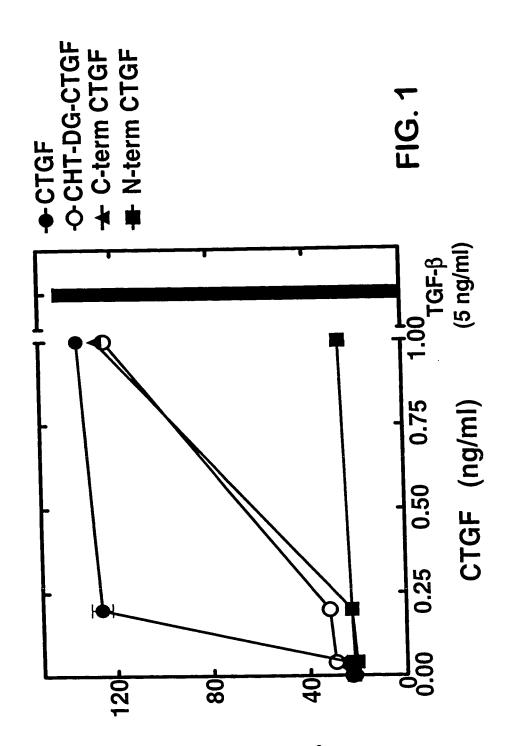


of CTGF and CTGF Domains Mitogenic Activity



 $^{3}H-$ Thymidine incorp.(cpm x $^{10^{3}}$)



K C C

E

E

W

D

N

V

C

2/8

cccggccgacagcccgagacgacagcccggcgcgtcccggtccccacctccgaccaccgcca accATGACCGCCGCCAGTATGGGCCCCGTCCGCGTCGCCTTCGTGGTCCTCCTC M T A A S M G P V R V A F V V L L GCCTCTGCAGCCGGCCGTCGGCCAGAACTGCAGCGGGCCGTGCCGGTGCCCGGAC R V G Q и с S G Α exon 2 -> GAGCCGCGCGCGCCGCCGGCGGCGTGAGCCTCGTGCTGGACGGCTGCGGCTGCTGC CPAGV S L D G Р R L CGCGTCTGCGCCAAGCAGCTGGGCGAGCTGTGCACCGAGCGCGACCCCTGCGACCCGCAC Q L Α K G E L C T E R Ρ AAGGGCCTCTTCTGTGACTTCGGCTCCCCGGCCAACCGCAAGATCGGCGTGTGCACCGCC F S Ρ Α N R K Ι G F C D G |-> AAAGATGGTGCTCCCTGCATCTTCGGTGGTACGGTGTACCGCAGCGGAGAGTCCTTCCAG D G P C Ι F G G T V Y R S G Ε S Α exon 3 AGCAGCTGCAAGTACCAGTGCACGTGCCTGGACGGGCCGGTGGGCTGCATGCCCCTGTGC K Y Q C T C L D G Α V G C Р AGCATGGACGTTCGTCTGCCCAGCCCTGACTGCCCCTTCCCGAGGAGGGTCAAGCTGCCC R Р S P D C Ρ F Ρ R R V

L A Α Y R L Ε D T F G P D R -> exon 4 AACTGCCTGGTCCAGACCACAGAGTGGAGCGCCTGTTCCAAGACCTGTGGGATGGGCATC K 0 T Т Ε W S Α C S C TCCACCCGGGTTACCAATGACAACGCCTCCTGCAGGCTAGAGAAGCAGAGCCGCCTGTGC

GGGAAATGCTGCGAGGAGTGGGTGTGTGACGAGCCCAAGGACCAAACCGTGGTTGGGCCT

GCCCTCGCGGCTTACCGACTGGAAGACACGTTTGGCCCAGACCCAACTATGATTAGAGCC

E

Ρ

K D

0

 \mathbf{E}

K O

Т

D

FIG. 2-1

ASCRL



APPLICANT(S): Grotendorst and Neff
TITLE: CONNECTIVE TISSUE GROWTH FACTOR FRAGMENTS AND METHODS AND USES THEREOF
Application No.: 09/461,646 Filing Date: December 14, 1999

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ATGGTCAGGCCTTGCGAAGCTGACCTGGAAGAGAACATTAAGAAGGGCAAAAAGTGCATC Р C E D L Ε Ε Ν Ι K K GKK R Α -> exon 5 CGTACTCCCAAAATCTCCAAGCCTATCAAGTTTGAGCTTTCTGGCTGCACCAGCATGAAG Р Ι S K Р Ι K F E \mathbf{L} S G C ĸ ACATACCGAGCTAAATTCTGTGGAGTATGTACCGACGGCCGATGCTGCACCCCCCACAGA V C G R C С ĸ F C G Т D ACCACCACCTGCCGGTGGAGTTCAAGTGCCCTGACGCCGAGGTCATGAAGAAGAACATG Ε K C D Ε V F P G Μ ATGTTCATCAAGACCTGTGCCTGCCATTACAACTGTCCCGGAGACAATGACATCTTTGAA TCACH Y N C Ρ G D Ν ${\tt TCGCTGTACTACAGGAAGATGTACGGAGACATGGCATGAagccagagagtgagagacatt}$ SLYYRKMYGD M A

aactcattagactggaacttgaactgattcacatctcatttttccgtaaaaatgatttcagta tgtgccatgtcaaacaaatagtctatcttccccagacactggtttgaagaatgttaagacttg acagtggaactacattagtacacagcaccagaatgtatattaaggtgtggctttaggagcagt gggagggtaccggcccggttagtatcatcagatcgactcttatacgagtaatatgcctgctat agctaggatgtgcattctccagccatcaagagactgagtcaagttgttccttaagtcagaaca gcagactcagctctgacattctgattcgaatgacactgttcaggaatcggaatcctgtcgatt agactggacagcttgtggcaagtgaatttgcctgtaacaagccagattttttaaaaatttatat aatttaaagttgtttgtgcctttttatttttgtttttaatgctttgatatttcaatgttagcc tcaatttctgaacaccataggtagaatgtaaagcttgtctgatcgttcaaagcatgaaatgga tacttatatggaaattctgctcagatagaatgacagtccgtcaaaacagattgtttgcaaagg ggaggcatcagtgtcttggcaggctgatttctaggtaggaaatgtggtagctcacg

FIG. 2-2



APPLICANT(S): Grotendorst and Neff
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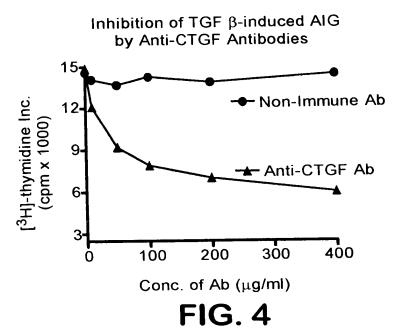
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GCCCTCGCGGCTTACCGACTGGAAGACACGTTTGGCCCAGACCCAACTATGATTAGAGCC Α AYRL EDTFGPDP Т M Ι R A |-> exon 4 AACTGCCTGGTCCAGACCACAGAGTGGAGCGCCTGTTCCAAGACCTGTGGGATGGGCATC V O Т Т E W S A C S K Т С G TCCACCCGGGTTACCAATGACAACGCCTCCTGCAGGCTAGAGAAGCAGAGCCGCCTGTGC R D N Α S C R L E K 0 ATGGTCAGGCCTTGCGAAGCTGACCTGGAAGAGACATTAAGAAGGGCAAAAAGTGCATC C Α D L Ε Ε N Ι K K G K K |-> exon 5 CGTACTCCCAAAATCTCCAAGCCTATCAAGTTTGAGCTTTCTGGCTGCACCAGCATGAAG Ι K P Ι K F Ε L S G С S ACATACCGAGCTAAATTCTGTGGAGTATGTACCGACGCCGATGCTGCACCCCCCACAGA AKFC G V C Т D G R C C ACCACCACCTGCCGGTGGAGTTCAAGTGCCCTGACGCGAGGTCATGAAGAAGAACATG P V E F K С P D G E ATGTTCATCAAGACCTGTGCCTGCCATTACAACTGTCCCGGAGACAATGACATCTTTGAA Ι K Т С Α C Η Y N С Ρ G D N D Ι TCGCTGTACTACAGGAAGATGTACGGAGACATGGCATGAagccagagagtgagagacatt L Y Y R K M Y G D M A

FIG. 3











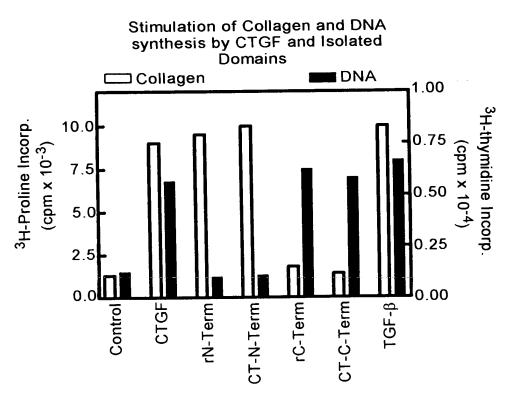


FIG. 5





Effect of EGF on CTGF Mitogenic Activity

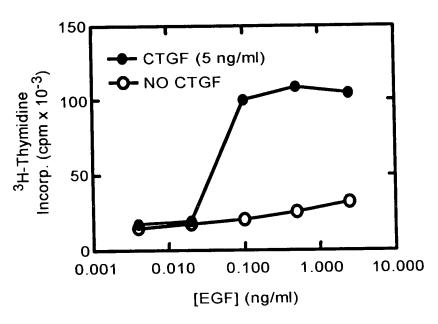


FIG. 6





Selective Inhibition of DNA Synthesis is by anti-CTGF C-Terminal Ig G

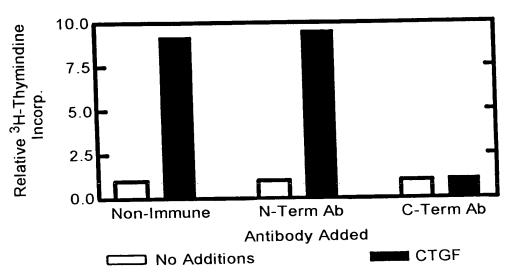


FIG. 7